those who spent a relatively shorter time in airplane flights. I do, however, have grave doubts as to the accuracy of the investigation which was carried out in a retrospective fashion by asking the patient to recall episodes that occurred during visits and airplane travel. The fact that it was not required that the crisis be documented by visits to a physician or medical facility does cast considerable doubt on the validity of the method. In particular, it would have been interesting to have had a comparison question asking for the number of episodes that have occurred in visiting another part of the country which was at sea level, such as Los Angeles or Monterey. A critical review of the article also causes doubt as to what is meant by average risk percent in Table 2, I find this figure totally indecipherable. The authors also ignore findings that do not fit in with their general philosophy such as that vaso-occlusive crisis appeared to be more frequent in the homozygous sickle cell hemoglobin patients during their visits to an altitude of 4,000 feet than to an altitude of 6,000 feet.

My real concern with this article is with the confidently stated conclusion, which is also repeated in the abstract, that patients with sickle cell disease who have intact spleens should take supplemental oxygen during air travel. I also have difficulty in accepting the other conclusion that patients with sickle cell disease who have had no previous mountain exposure should be advised to avoid the mountains. While this advice may indeed be proved later to be based on fact, I do not think the evidence presented in this article supports the conclusion.

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REFERENCE

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A Risk of Waterskiing for Women

TO THE EDITOR: In August 1981 a 36-year-old woman arrived at Seneca District Hospital in Chester, Plumas County, California. Her husband had brought her in the family car from nearby Lake Almanor. She had been water-skiing and (about one hour before arrival at the hospital) had fallen backwards into the water. She experienced a pressure feeling "like a high speed enema" and noted vaginal bleeding, "several cupfuls." Her husband became concerned and brought her to the hospital. The accident had occurred after the boat that was towing her slowed down, almost stalled and then speeded up. As the boat's speed increased, she had lost her balance and fallen backwards.

On examination in the emergency room, blood pressure was 110/60 mm of mercury, pulse 100, hemoglobin 12.7 grams per dl, hematocrit 35 percent and leukocyte count 10,600. Her blood type was A negative. Vaginal examination showed a zigzag vaginal laceration 13 cm long, extending from a point posterior to the cervix to the left vault of the vagina, high up in the vagina. During the examination, 250 ml of blood gushed out of the wound. Her blood pressure dropped to 90/50 mm of mercury. An infusion of Ringer's lactate was given.

The patient was taken to the operating room and, under general anesthesia, the laceration was closed with two layers of locked 0 chromic catgut sutures. Two small arteries in the submucous tissues bled profusely until sutured. Blood loss in the operating room was 500 ml. The patient was given two units of plasma protein fraction (Plasmonate), a vaginal pack was placed and a Foley catheter inserted.

On the next morning hemoglobin was 8.1 grams per dl and hematocrit 22.1 percent. Two units of compatible blood (packed red blood cells) were given. That afternoon, hemoglobin rose to 10.5 grams per dl and hematocrit to 30 percent. The vaginal pack and Foley catheter were removed.

On the third day she was discharged and returned to her home in central California. She received a prescription for ferrous sulfate tablets. Fifteen days later I phoned the patient to obtain follow-up information. She had some vaginal bleeding a week after the accident. Her physician cauterized the superior part of the laceration, where fresh bleeding had occurred. She stated that a hemoglobin test, done 13 days after the accident, showed 12.5 grams.

This case illustrates the importance and seriousness of the occasional vaginal (and in other cases, rectal) lacterations that can occur from waterskiing accidents in which the skier falls backwards into the water.

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